

WHAT IS CLAIMED IS:

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1. A liquid jet recording apparatus for  
ejecting a recording composition from orifices toward a  
receiving medium so as to accomplish a recording, said  
recording composition formed by dispersing fine  
10 particles, wherein:

said orifices have a diameter less than 25  $\mu$   
m; and

each of said fine particles has a size  $D_p$   
determined by a relationship

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$$0.001 \leq D_p/D_0 \leq 0.01$$

wherein  $D_0$  represents a diameter of said orifices.

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2. The apparatus as claimed in claim 1,  
wherein said recording composition comprises a plurality  
of color recording compositions, each of said color  
recording compositions including said dispersed fine  
25 particles corresponding to a respective color, the

plurality of color recording compositions being  
ejectable from each of said orifices corresponding to  
the respective color.

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3. The apparatus as claimed in claim 2,  
further comprising a plurality of recording heads which  
10 eject the plurality of color recording compositions and  
form a head unit.

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4. The apparatus as claimed in claim 3,  
wherein said head unit includes a nozzle part and a  
recording liquid reservoir part integrally formed with  
the nozzle part.

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5. The apparatus as claimed in claim 3,  
wherein said head unit includes a nozzle part and a  
25 recording liquid reservoir part separable from the

nozzle part.

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6. The apparatus as claimed in claim 5,  
wherein said recording liquid reservoir part is  
separable according to a kind of the recording  
composition.

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7. A liquid jet recording apparatus for  
15 ejecting a recording composition from orifices toward a  
receiving medium so as to accomplish a recording, said  
recording composition formed by dispersing fine  
particles, wherein:

20 said orifices have a diameter less than 25  $\mu$   
m; and

a content of said fine particles in said  
recording composition is in the range of 2 to 10% by  
weight and a solid content of said recording composition  
including said fine particles is less than 15% by weight.

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8. The apparatus as claimed in claim 7,  
wherein said recording composition comprises a plurality  
of color recording compositions, each of said color  
recording compositions including said dispersed fine  
5 particles corresponding to a respective color, the  
plurality of color recording compositions being  
ejectable from each of said orifices corresponding to  
the respective color.

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9. The apparatus as claimed in claim 8,  
further comprising a plurality of recording heads which  
15 eject the plurality of color recording compositions and  
form a head unit.

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10. The apparatus as claimed in claim 9,  
wherein said head unit includes a nozzle part and a  
recording liquid reservoir part integrally formed with  
the nozzle part.

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11. The apparatus as claimed in claim 9,  
wherein said head unit includes a nozzle part and a  
recording liquid reservoir part separable from the  
nozzle part.

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12. The apparatus as claimed in claim 11,  
10 wherein said recording liquid reservoir part is  
separable according to a kind of the recording  
composition.

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13. A liquid jet recording apparatus for  
ejecting a recording composition from orifices toward a  
receiving medium so as to accomplish a recording, fine  
20 particles having a size  $D_p$  being dispersed in said  
recording composition, each of said orifices being a tip  
of a liquid passageway, wherein:

said orifices have a diameter less than 25  
 $\mu\text{m}$ ; and

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$D_p$  is determined by a relationship:

$$D_p/t \leq 0.01$$

wherein  $t$  is a length of said orifices having a uniform cross-sectional area at an outlet portion.

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14. The apparatus as claimed in claim 13,  
further comprising a nozzle plate having second orifices  
10 communicating with liquid passageways.

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15. The apparatus as claimed in claim 13,  
wherein a distance between said orifices and a surface  
of the receiving medium is less than  $100t$ , and said  
recording composition is ejected from said orifices in a  
direction of gravity approximately.

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16. The apparatus as claimed in claim 13,  
25 further comprising a plurality of recording heads which

eject the plurality of color recording compositions and form a head unit.

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17. The apparatus as claimed in claim 16,  
wherein said head unit includes a nozzle part and a  
recording liquid reservoir part integrally formed with  
10 the nozzle part.

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18. The apparatus as claimed in claim 16,  
wherein said head unit includes a nozzle part and a  
recording liquid reservoir part separable from the  
nozzle part.

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19. The apparatus as claimed in claim 18,  
wherein said recording liquid reservoir part is  
25 separable according to a kind of the recording

composition.

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20. A liquid jet recording apparatus for  
ejecting a recording composition from orifices toward a  
receiving medium so as to accomplish a recording, said  
recording composition formed by dispersing fine  
10 particles, wherein:

said orifices are formed of resin material and  
have a diameter less than <sup>B</sup>25  $\mu\text{m}$ ; and

said resin material has a hardness of Rockwell  
M65 to M120.

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21. The apparatus as claimed in claim 20,  
20 wherein each of said fine particles is a pigment having  
a diameter ranging from 0.02  $\mu\text{m}$  to 0.2  $\mu\text{m}$ .

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22. The apparatus as claimed in claim 20,  
further comprising a plurality of recording heads which  
eject the plurality of color recording compositions and  
form a head unit.

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23. The apparatus as claimed in claim 22,  
wherein said head unit includes a nozzle part and a  
10 recording liquid reservoir part integrally formed with  
the nozzle part.

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24. The apparatus as claimed in claim 22,  
wherein said head unit includes a nozzle part and a  
recording liquid reservoir part separable from the  
nozzle part.

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25. The apparatus as claimed in claim 24,  
25 wherein said recording liquid reservoir part is

separable according to ~~a kind of the recording~~  
composition.

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